

It looks like the reporter went ahead with her story using the fact sheet. Can you forward to Dr. Bowler? I'm forwarding from a Blackberry and don't have her email address saved on the device.

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**From:** Speizman, Elissa  
**Sent:** Thursday, July 18, 2013 8:36:58 AM  
**To:** Hedman, Susan; Mathur, Bharat; Czerniak, George  
**Cc:** Rowan, Anne; Cannon, Phillipa  
**Subject:** Marietta Times: Possible negative neurological link from manganese

## The Marietta Times

### Possible negative neurological link from manganese

Recent results online

July 18, 2013

By Jasmine Rogers (jrogers@mariettatimes.com) , The Marietta Times

Airborne manganese may be correlated to some negative neuropsychological health effects, including decreased motor functions and hand tremors, according to recently-released results of an ongoing study in Ohio.

The possible link was downplayed in Marietta more than three years ago when researchers led by Dr. Rosemarie Bowler of San Francisco State University presented the results of their 2009 study, measuring manganese exposure and neurological functioning of adult Marietta residents.

The study was expanded to East Liverpool in late 2011 and data released from that study last week showed a more definitive link, noted Dick Wittberg, Washington County Health Commissioner and Director of the Mid-Ohio Valley Health Department.

"When they got through with us and they presented, they were not willing to say any adults suffered any health consequences. And now they are saying that," said Wittberg, looking over results posted on the Environmental Protection Agency's website.

In Marietta, the airborne metal material is produced and released into the air through Eramet Marietta's smelting process. In East Liverpool, residents are exposed to manganese through raw products storage and packaging facility S.H. Bell, according to the report.

Eramet has made significant strides to reduce manganese emissions over the past several years, said Joy Frank-Collins, a spokeswoman for Eramet Marietta.

#### Fact Box

##### Manganese and health effects

- Increased exposure to airborne manganese may be related to neuropsychological health effects.
- Adult residents in manganese-exposed Marietta and East Liverpool were studied, tested and compared to residents in Mount Vernon where there is no airborne manganese source.
- The recent results of the East Liverpool study show that residents there have slightly higher concentrations of manganese in their blood and perform worse than the two comparison cities in a handful of neuropsychological tests.
- The possible effects of manganese exposure on children ages 7 to 9 were recently studied in Marietta and are currently being analyzed.
- A study of manganese-exposed children in the same age group is planned for East Liverpool in the near future.

Source: Dr. Erin Haynes and [www.epa.gov/nheerl/mnstudy](http://www.epa.gov/nheerl/mnstudy)

"To date we've done about \$40 million worth of investments in the facility that have continued to decrease the alloy emissions and increase sustainability of the plant," she said.

Among other things, the plant installed an emissions abatement system that has dramatically decreased emissions since the local manganese study, and they are continually looking at ways to improve, she said.

S. H. Bell has also consistently lowered manganese emissions over the past several years, according to the report.

While manganese levels in the blood were within normal ranges in all three towns, the levels were higher in the manganese-exposed cities and highest in East Liverpool residents, noted University of Cincinnati environmental health researcher Dr. Erin Haynes.

Haynes was not a part of the study, but has been conducting a similar study of manganese effects in children ages 7 to 9 in Marietta and will soon be expanding the study to East Liverpool.

"We wanted total life exposure-children who have lived in the cities their entire lives and in utero," she said.

The results of the Marietta testing are still being analyzed, said Haynes, but there is already a hope that she will be able to secure more grant money to revisit the same test subjects later in adolescents, she said.

In the adults study, testing results in both cities and in a city with no airborne manganese source were compared.

The study found that East Liverpool residents scored worse on a number of neurological functioning tests than in Marietta or comparison city Mount Vernon, said Wittberg.

East Liverpool scored worse than both cities on word reading, motor speed, motor strength and motor tactile tests, according to study results.

East Liverpool residents also had greater instances of postural sway and hand tremors, said Wittberg.

"These are the same types of thing associated with lead and mercury exposures and we know the effects those things have on infants and children and my suspicion is that we're going to be ending up with the same conclusion with manganese," he said.

Wittberg is worried that even though exposure rates have been reduced, the manganese could have a negative health impact on children, whose still-developing brains are more susceptible to neurological problems.

"My concern has always been what does it do to the children. Because these things they are talking about are already having a neurological effect on adults and their brain is already formed," he said.

Data from the adult study will continue to be analyzed. Current analysis is available on the EPA's website at [www.epa.gov/nheerl/mnstudy/](http://www.epa.gov/nheerl/mnstudy/).

<image001.gif>

**The Marietta Times**

700 Channel Lane, Marietta, OH 45750 | 740-373-2121

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**Colledge, Michelle**

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**From:** Lobdell, Danelle  
**Sent:** Monday, July 15, 2013 12:49 PM  
**To:** Stein, Greg; Rosemarie Bowler (rbowl@sfsu.edu); Bollweg, George; Colledge, Michelle  
**Cc:** Frey, Bob  
**Subject:** RE: 3-alarm fire at the Heritage WTI hazardous waste incinerator in E Liverpool

Thank you Greg for all of your efforts. I am sadden to see this accident at WTI.

Danelle

**Danelle T. Lobdell, Ph.D., M.S.**

Epidemiologist  
National Health and Environmental Effects Research Laboratory  
Environmental Public Health Division

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**Package Delivery:**

USEPA Human Studies Facility  
104 Mason Farm Rd, Room 52  
Chapel Hill, NC 27514-4512  
**Phone:** 919-843-4434 **Fax:** 919-966-7584

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**From:** Stein, Greg [mailto:Greg.Stein@odh.ohio.gov]  
**Sent:** Monday, July 15, 2013 11:55 AM  
**To:** Rosemarie Bowler (rbowl@sfsu.edu); Bollweg, George; Lobdell, Danelle; Colledge, Michelle  
**Cc:** Frey, Bob  
**Subject:** 3-alarm fire at the Heritage WTI hazardous waste incinerator in E Liverpool

Hello and good morning to the Marietta and E Liverpool team.  
I hope you are all back home and into your "normal" home and work routine.

Please allow me a few seconds of your valuable time...

Let me start by expressing my sincere gratitude and appreciation for the trust and confidence you placed in me (us) over that past, what?, eight years?? A long time, anyhow.

I began working in the healthcare field right out of high school and have worked 29+ years in this field and this has been my first experience working in health from research and academic perspective. It has been a really great and interesting experience and I am honored to have been a part of it and to be considered a colleague. It has definitely been fascinating to see the different academic and research perspectives and I thank you for allowing me to sometimes challenge and to share our concerns from a local (state) public health perspective. Your work in Ohio has certainly benefitted the residents or our state and while at the same time, benefitted the field of available research. I hope that this experience has also led to a better understanding of how "we" need to provide our lay communities with a useful product gleaned from this highly technical information we produce.

But I'd like to provide a few thoughts that have been on my mind and that I wasn't able to share during our multi agency de-brief (partially because I was emotionally drained and just listening and partially because I

**Colledge, Michelle**

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**From:** Cannon, Phillippa  
**Sent:** Monday, July 15, 2013 10:06 AM  
**To:** Colledge, Michelle  
**Subject:** RE: East Liverpool Communications -- final ORD fact sheet

The region is not managing the web page -- ORD is doing so. I'll forward the request to Heather Drumm in ORD communications.

---

**From:** Colledge, Michelle  
**Sent:** Monday, July 15, 2013 10:04 AM  
**To:** Cannon, Phillippa; Tyson, MaryPat; Bollweg, George; Braverman, Carole; Dickens, Brian  
**Subject:** RE: East Liverpool Communications -- final ORD fact sheet

Hi Phillippa-thanks!

Can we get the slides on the website? We promised the community they would be there Friday. Mike Walton (community member) told me they aren't there yet.

Thx again!  
Michelle

---

**Michelle A. Colledge MPH, PhD**  
CDR, U.S. Public Health Service  
Agency for Toxic Substances and Disease Registry/NCEH/CDC, Region 5  
77 W. Jackson Blvd., Room 413  
Mailstop ATSD-4J  
Chicago, Illinois 60604  
Tel: 312-886-1462  
Fax: 312-886-6066

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**From:** Cannon, Phillippa  
**Sent:** Tuesday, June 25, 2013 2:45 PM  
**To:** Tyson, MaryPat; Bollweg, George; Braverman, Carole; Dickens, Brian; Colledge, Michelle  
**Subject:** FW: East Liverpool Communications -- final ORD fact sheet

In case you haven't received this directly from ORD.

---

**From:** Drumm, Heather  
**Sent:** Tuesday, June 25, 2013 2:34 PM  
**To:** Cannon, Phillippa  
**Subject:** RE: East Liverpool Communications

Hi Phillippa,  
Attached is the factsheet that will be passed out at the meeting, FYI.

Also, in case you need it, the URL for ORD's web page about the health study will be <http://nheerlpub.rtord.epa.gov/nheerl/mnstudy/>. It will go live on July 12.



---

*Heather Drumm*

Communications Coordinator  
Office of Science Policy  
EPA's Office of Research and Development  
(202) 564-8239

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**From:** Cannon, Phillippa  
**Sent:** Thursday, June 13, 2013 4:48 PM  
**To:** Drumm, Heather  
**Subject:** RE: East Liverpool Communications

Sorry for the delay in replying, I was waiting to hear back from our air program. I spoke to the manager of our regional web pages and he said we will post the meeting info on our public meetings calendar and add a link on the Ohio page to the ORD page with the fact sheet and any other information about the study. We don't plan a web page specific to East Liverpool.

We plan to issue a media brief announcing the meeting and including a link to the web page for more information about the study results. The region will not issue a news release summarizing the results.

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**From:** Drumm, Heather  
**Sent:** Monday, June 10, 2013 2:53 PM  
**To:** Cannon, Phillippa  
**Cc:** Blackburn, Elizabeth; Hubbard, Carolyn  
**Subject:** East Liverpool Communications

Hi Phillipa - I wanted to touch base with you on the status of ORD's review of materials for the July 11 public meeting in East Liverpool, OH.

We have reviewed the letter to the editor from Rosemarie Bowler to the Marietta community. This will be published in the Marietta newspaper a day or two prior to the public meeting. Please let me know if you have any comments.

Additionally, we are working on final, mostly grammatical, edits to the factsheet that will be handed out at the meeting. I will send this to you shortly. We would like this to be included in any media packets that you'll be putting together.

I'm also putting together Qs & As that I'll share with you when they are ready.

Our health effects lab is working on a website that will go live the day after the meeting. This is an informational website where we plan to post any updates to our study results, meeting presentations, and future published papers and reports. Do you know if Region 5 is planning to create a website for the Marietta or East Liverpool Mn health studies, enforcement actions, etc?

And, finally, Is the region planning a press release or any other outreach for this event?

Thanks,  
Heather

*Heather Drumm*

Communications Coordinator

Office of Science Policy

EPA's Office of Research and Development

(202) 564-8239

**Colledge, Michelle**

---

**From:** Colledge, Michelle  
**Sent:** Monday, July 15, 2013 10:07 AM  
**To:** Cannon, Phillippa  
**Subject:** RE: East Liverpool Communications -- final ORD fact sheet

That would be great! Thanks! Hope you are well ☺

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**Michelle A. Colledge MPH, PhD**  
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